

**Bachelor of Applied Science
Information Technology Infrastructure Major Courses - PREREQUISITES**

University of Minnesota-Twin Cities (UMTC)

Course Topic	Course #	Cr.	Prerequisites (strongly recommended)
ITI Core Courses			
Introduction to Operating Systems	INet 4001 (was CSci 4061)	4	CSci 2021 or EE 2361
Foundations of Networking	INet 4002 (was CSci 4211)	3	Basic knowledge of computer architecture and operating systems)
Introduction to Systems	INet 4031	4	Secure knowledge of operating systems
IT Infrastructure Operations [Capstone]	INet 4051	3	INet 4002; senior.
IT Infrastructure Projects and Processes	INet 4082W	3	45 credits
Introduction to Security: Policy and Regulation	INet 4153	4	Experience with Windows/Internet; 45 credits
Databases	INet 4707 or	4	INet 4001; 45 credits.
	CSci 4707	[3]	CSci 4041
ITI Track Electives (Choose 3–5 credits depending on track)			
Security II: Cyber Security	INet 4007	4	Basic knowledge of security issues and processes recommended (e.g., INet 4165)
Networking I: Network Administration	INet 4011	4	INet 4002
DevOps I: Network Programming	INet 4021	4	Algorithms, machine architecture, and programming knowledge
Systems I: Storage	INet 4032	4	Operating systems knowledge; laptop
Networking II: Emerging Technologies (under redevelopment 2018–19)	INet 4XXX	4	TBD
Data Science I: Fundamentals	INet 4061	3	INet 4707 or CSci 4707; laptop
Systems II: Analysis and Design	INet 4083	3	INet 4082 or project management experience
DevOps II: Development Strategies	INet 4121	4	INet 4001 or operating system knowledge; basic Python
Security I: Principles	INet 4165	3	INet 4001 or operating system knowledge
Directed Study	INet 4193	1–4	ITI faculty director and instructor approval, ITI student
Internship	INet 4596	1–3	ITI faculty director and instructor approval; ITI student; jr or sr
Data Management I: Fundamentals (under redevelopment 2018–19)	INet 4709	3	INet 4001; INet or CSci 4707; or professional experience with SQL and basic operating systems
Data Science II: Big Data Analytics	INet 4710	4	Basic programming knowledge (Java, Python, R). Linear algebra.
Data Management II: Distributed Systems	INet 4711	4	INet 4031 and 4707
Management (Choose one course)			
Management in Organizations	ABus 4022W	3	45 credits
Health Care Administration and Mgmt.	HSM 4561	3	sophomore (required)
Business Communication			
Communicating for Results	ABus 4023W	3	45 credits
Finance/Cost Accounting (Choose one course)			
Accounting and Finance for Managers	ABus 4101	3	financial accounting; 45 credits
Health Care Finance	HSM 4541	3	45 credits (required). Basic accounting; Microsoft Excel
Quality and Process Improvement (Choose one course)			
Introduction to Quality Management	ABus 3301	3	introductory statistics
Quality Engineering and Process Improvement	MM 4201	3	introductory statistics; 45 credits